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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/522,100

01/24/2005

Hidehiko Inokuchi

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EXAMINER

AL HASHIMI, SARAH

ART UNIT

PAPER NUMBER

2853

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/24/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/522,100	Applicant(s) INOKUCHI ET AL.	
	Examiner Sarah Al-Hashimi	Art Unit 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 13-15 and 20-22 is/are rejected.
- 7) ☒ Claim(s) 9-12 and 16-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :01/24/2005,04/08/2005,03/13/2007.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claim 8** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8: The ink-jet recording device of claim 6, wherein the fan is constructed by a cooling fan of the power supply substrate.

"The fan is constructed by a cooling fan of the power supply substrate" appears to be claimed as a method of making where as this is an apparatus claim. For the purposes of examination the claim will be interpreted to pertain to a fan and the method of construction will not be examined.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claim 1** is rejected under 35 U.S.C. 102(b) as being anticipated by Goto US 20030063154 A1.

Claim 1: An ink-jet recording device comprising: a substantially rectangular parallelepiped casing whose vertical length is shorter than lateral and anteroposterior

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lengths thereof (fig 1 #3); an ink-jet recording head provided inside of the casing (fig 1 #6); a tray which is arranged under the recording head inside of the casing and supports a recording medium on which recording is performed by the recording head (fig 1 #21); a moving mechanism moving the tray in the casing anteroposterior direction so that the tray passes through a position under the recording head (fig 1 #20); and a power supply substrate arranged above the tray inside of the casing (fig 20 #110 and it is inherent that the power supply substrate is within the casing as it is part of the invention and all parts of the invention as disclosed in the drawings are within the casing).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Goto in view of Okawa US 20010005459 A1.

Goto does not teach:

Claim 2: The ink-jet recording device of claim 1 further comprising: a supply cassette which is arranged under the tray inside of the casing and houses a recording medium different from the recording medium supported by the tray; and a conveying mechanism conveying the recording medium housed in the supply cassette to a recording position where the recording is performed by the recording head.

Okawa teaches:

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Claim 2: The ink-jet recording device of claim 1 further comprising: a supply cassette which is arranged under the tray inside of the casing and houses a recording medium different from the recording medium supported by the tray (fig 1 #21 and #71 beneath #21, #71 houses OHP and para 30 indicates that the tray can hold papers or transparencies—"a recording medium such as an ordinary (or common) sheet"); and a conveying mechanism conveying the recording medium housed in the supply cassette to a recording position where the recording is performed by the recording head (para 31 "the digital copying machine includes an automatic document feeder").

Therefore it would have been obvious for a person having ordinary skill in the art at the time the invention was made to modify Goto to incorporate a supply cassette which is arranged under the tray inside of the casing and houses a recording medium different from the recording medium supported by the tray; and a conveying mechanism conveying the recording medium housed in the supply cassette to a recording position where the recording is performed by the recording head as taught by Okawa in order to allow versatility in the mediums used for imaging.

5. **Claims 3&14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Goto in view Inokuchi US 20050162494 A1.

Goto teaches:

Claim 14: An ink-jet recording device comprising: a substantially rectangular parallelepiped casing whose vertical length is shorter than lateral and anteroposterior lengths thereof (fig 1 #3).

Goto does not teach but **Inokuchi** teaches:

Claim 3: The inkjet recording device of claim 1 further comprising: a carriage shaft extending in a casing lateral direction inside of the casing (fig 52 #201); a chassis supporting both ends of the carriage shaft (fig 52 #19); a carriage which holds the recording head, reciprocates along the carriage shaft in the casing lateral direction, and has a home position at any one of the ends of the carriage shaft (fig 56 #101); and a control substrate provided vertically in a direction perpendicular to the carriage shaft at a position outside of the chassis on the opposite side of the home position in the casing lateral direction inside of the casing (fig 52 #602).

Claim 14: a carriage shaft extending in the casing lateral direction inside of the casing (fig 52 #201); a chassis supporting both ends of the carriage shaft; a carriage which reciprocates along the carriage shaft in the casing lateral direction and has a home position at any one of the ends of the carriage shaft (fig 52 #19); an inkjet recording head attached to the carriage (fig 56 #101); and a control substrate provided vertically in a direction perpendicular to the carriage shaft at a position outside of the chassis on the opposite side of the home position in the casing lateral direction inside of the casing (fig 52 #602).

Therefore it would have been obvious for a person having ordinary skill in the art at the time the invention was made to modify Goto to incorporate a carriage shaft extending in a casing lateral direction inside of the casing; a chassis supporting both ends of the carriage shaft; a carriage which holds the recording head, reciprocates along the carriage shaft in the casing lateral direction, and has a home position at any one of the ends of the carriage shaft; and a control substrate provided vertically in a direction

perpendicular to the carriage shaft at a position outside of the chassis on the opposite side of the home position in the casing lateral direction inside of the casing as taught by Inokuchi to prevent the situation of a paper jam when a "cartridge holder is provided on the front side of the recording device, whereby the space of the opening is reduced by the amount of the space taken up by the cartridge holder".

6. **Claim 4&21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Goto in view of Sasaki US 6583802 B2.

Goto teaches:

Claim 4: The ink-jet recording device of claim 1, wherein: a protruded part which is protruded rearward is formed in a back surface of the casing (fig 1 #106).

Claim 21: An ink-jet recording device comprising: a substantially rectangular parallelepiped casing whose vertical length is shorter than lateral and anteroposterior lengths thereof (fig 1 #3); an ink-jet recording head provided inside of the casing (fig 1 #6); a supply cassette which is arranged under the recording head inside of the casing and houses a recording medium on which recording is performed by the recording head (fig 1 #21); and a conveying mechanism conveying the recording medium housed in the supply cassette to a recording position where the recording is performed by the recording head (fig 1 #20), wherein a protruded part which is protruded rearward is formed in a back surface of the casing (fig 1 #106).

Goto does not teach

Claim 4: External connection terminals are provided in a part other than the protruded part in the back surface of the casing.

Claim 21: external connection terminals are provided in a part other than the protruded part in the back surface of the casing.

Sasaki teaches:

Claim 4: External connection terminals are provided in a part other than the protruded part in the back surface of the casing (fig 24 #228).

Claim 21: external connection terminals are provided in a part other than the protruded part in the back surface of the casing (fig 24 #228).

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Goto to incorporate the external connection terminals provided in a part other than the protruded part in the back surface of the casing as taught by Sasaki because to allow for more connection outlets to the casing when extra cables are needed.

7. **Claims 5-8,13,20,22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Goto in view of Inokuchi as applied to claim 3 above, and further in view of Sasaki US 6583802 B2.

Goto teaches:

Claim 5: The ink-jet recording device of claim 3, wherein: a protruded part which is protruded rearward is formed in a back surface of the casing (fig 1 #106).

Claim 15: The ink-jet recording device of claim 14, wherein: a protruded part which is protruded rearward is formed in a back surface of the casing (fig 1 #106).

Inokuchi teaches:

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Claim 13: The ink-jet recording device of claim 4, wherein: the supply cassette is a cassette whose length in the casing anteroposterior direction is longer than an anteroposterior length of a casing side surface, and which extends rearward beyond a rear end of the casing side surface (fig 8c); and the protruded part of the casing covers the rear end part of the supply cassette extending rearward beyond the rear end of the casing side surface (fig 8c).

Claim 20: The ink-jet recording device of claim 15, wherein: the supply cassette is a cassette whose length in the casing anteroposterior direction is longer than an anteroposterior length of a casing side surface, and which extends rearward beyond a rear end of the casing side surface (fig 8c); and the protruded part of the casing covers the rear end part of the supply cassette extending rearward beyond the rear end of the casing side surface (fig 8c).

Claim 22: The ink-jet recording device of claim 21, wherein: the supply cassette is a cassette whose length in the casing anteroposterior direction is longer than an anteroposterior length of a casing side surface, and which extends rearward beyond a rear end of the casing side surface (fig 8c); and the protruded part of the casing covers the rear end part of the supply cassette extending rearward beyond the rear end of the casing side surface (fig 8c).

Goto in view of **Inokuchi** does not teach:

Claim 5: external connection terminal are provided in a part other than the protruded part in the back surface of the casing.

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Claim 6: The ink-jet recording device of claim 1 further comprising a fan sending air to the recording medium after recording onto the recording medium supported by the tray.

Claim 7: The ink-jet recording device of claim 6 further comprising a heat source heating the air sent by the fan.

Claim 8: The ink-jet recording device of claim 6, wherein the fan is constructed by a cooling fan of the power supply substrate.

Claim 15: external connection terminals are provided in a part other than the protruded part in the back surface of the casing.

Sasaki teaches:

Claim 5: external connection terminal are provided in a part other than the protruded part in the back surface of the casing (fig 24 #228).

Claim 6: The ink-jet recording device of claim 1 further comprising a fan sending air to the recording medium after recording onto the recording medium supported by the tray (fig 1 #65).

Claim 7: The ink-jet recording device of claim 6 further comprising a heat source heating the air sent by the fan (col 2 lines 44-5 "the thermal head pressurizes and heats the recording material").

Claim 8: The ink-jet recording device of claim 6, wherein the fan is constructed by a cooling fan of the power supply substrate (fig 1 #65).

Claim 15: external connection terminals are provided in a part other than the protruded part in the back surface of the casing (fig 24 #228).

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Goto in view of Inokuchi to incorporate the external connection terminals provided in a part other than the protruded part in the back surface of the casing and a fan sending air to the recording medium after recording onto the recording medium supported by the tray as taught by Sasaki because to allow for more connection outlets to the casing when extra cables are needed and the fan prevents overheating in the printer that can deteriorate image quality.

Allowable Subject Matter

8. **Claims 9-12,16-19** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 9: The ink-jet recording device of claim 3, wherein: the control substrate has a plurality of external connection terminals in line vertically; and in the casing, an opening for connection to the external connection terminals is formed.

Claim 10: The inkjet recording device of claim 9, wherein: the plurality of external connection terminals are provided in line vertically in an end part on the casing front side of the control substrate and an end part on the casing rear side thereof, respectively; and in the front surface and the back surface of the casing, openings for connection to the external connection terminals in the end part on the casing front side of the control substrate and in the end part on the casing rear side thereof are formed, respectively.

Claim 11: The ink-jet recording device of claim 3, wherein the control substrate has a plurality of internal connection terminals arranged in an upper part of the control substrate.

Claim 12: The ink-jet recording device of claim 11, wherein the internal connection terminals are provided so as to be oriented inward in the casing lateral direction in an inner surface in the casing lateral direction of the control substrate.

Claim 16: The ink-jet recording device of claim 14, wherein: the control substrate has a plurality of external connection terminals in line vertically; and in the casing, an opening for connection to the external connection terminals is formed.

Claim 17: The ink-jet recording device of claim 16, wherein: the plurality of external connection terminals are provided in line vertically in an end part on the casing front side of the control substrate and an end part on the casing rear side thereof, respectively; and in the front surface and the back surface of the casing, openings for connection to the external connection terminals in the end part on the casing front side of the control substrate and in the end part on the casing rear side thereof are formed, respectively.

Claim 18: The ink-jet recording device of claim 14, wherein the control substrate has a plurality of internal connection terminals arranged in an upper part of the control substrate.

Claim 19: The inkjet recording device of claim 18, wherein the internal connection terminals are provided so as to be oriented inward in the casing lateral direction in an inner surface in the casing lateral direction of the control substrate.

Conclusion


9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 20060158495 A1, US 20010017644 A1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah Al-Hashimi whose telephone number is 571 272 7159. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571 272 2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SA


LAM SON NGUYEN
PRIMARY EXAMINER
